CLAIMS

1. Use of a recombinant nucleotide sequence containing firstly a cDNA coding for an element of the pancreatic lipase-colipase complex of mammals or for a protein or a derived polypeptide, and secondly the elements enabling a plant cell to produce this element, or the protein or the derived polypeptide, coded by said cDNA, in particular a promoter and a transcription terminator recognised by the transcriptional machinery of the plant cells, for transforming plant cells, with a view to obtaining, from these cells, or from plants obtained from the latter, a recombinant element of the pancreatic lipase-colipase complex of mammals, or a protein or derived polypeptide.

2. Use in accordance with claim 1, characterised in that the element of the pancreatic lipase-colipase complex is pancreatic lipase.

3. Use in accordance with claim 1, characterised in that the element of the pancreatic lipase-colipase complex is colipase.

4. Use of the sequences in accordance with claims 2 and 3 for the co-transformation of plant cells with a view to obtaining, from these cells, or from plants obtained from the latter, a recombinant mammalian pancreatic lipase and colipase, or their derivatives.

5. Recombinant nucleotide sequence, characterised in that it contains firstly the sequence coding for an element of the pancreatic lipase-colipase complex or a protein or a derived polypeptide, and secondly the elements enabling a plant cell to produce an element of the pancreatic lipase-colipase complex or a protein or derived polypeptide coded by said sequence, in particular a promoter and a transcription terminator recognised by the transcriptional machinery of the plant cells.

6. Recombinant nucleotide sequence in accordance with claim 5, characterised in that the element of the pancreatic lipase-colipase complex is pancreatic lipase.

7. Recombinant nucleotide sequence in accordance with claim 5, characterised in that the element of the pancreatic lipase-colipase complex is colipase.

8. Recombinant nucleotide sequence, characterised in that it contains firstly the sequences coding for a pancreatic lipase and a colipase or the proteins or derived polypeptides, and secondly the elements enabling a plant cell to produce a pancreatic lipase and a colipase or the proteins or derived polypeptides coded by said sequence, in particular a promoter and a transcription terminator recognised by the transcriptional machinery of the plant cells.

9. Vector, in particular a plasmid vector, containing a nucleotide sequence in accordance with any of claims 5 to 8, inserted at a site that is non-essential for its replication.

10. Host cell, in particular any bacterium such as *Agrobacterium tumefaciens*, transformed by a vector in accordance with claim 9.

11. Method for obtaining an element of the recombinant pancreatic lipase-colipase complex, or a protein or derived polypeptide, characterised in that it comprises :

- the transformation of plant cells, in particular using a host cell according to claim 10, itself transformed by a vector according to claim 9, such as to incorporate in the genome of these cells a recombinant sequence in accordance with claim 5

- optionally , obtaining transformed plants from the above-mentioned transformed cells,

- recovery of the element of the recombinant pancreatic lipase-colipase complex or the protein or derived polypeptide produced in said above-mentioned cells or transformed plants, in particular by extraction, optionally followed by purification.

12. Production method, in accordance with claim 11, characterised in that the element of the pancreatic lipase-colipase complex is pancreatic lipase.

13. Production method, in accordance with claim 12, characterised in that the element of the pancreatic lipase-colipase complex is colipase.

14. Co-production method of recombinant pancreatic lipase and colipase, or the

protein or derived polypeptide, characterised in that it comprises :

- the transformation of plant cells, in particular using a host cell in accordance with claim 10, itself transformed by a vector in accordance with claim 9,such as to incorporate into the genome of these cells a recombinant sequence in accordance with claim 8,

- optionally obtaining transformed plants from the above-mentioned transformed cells,

- recovery of the recombinant pancreatic lipase and colipase or proteins or derives polypeptides produced in said above-mentioned cells or transformed plants, in particular by extraction, followed if necessary by purification.

15. Plants, *or parts* of plants, *in particular leaves and/or fruits and/or seeds and/or* plant cells, genetically transformed, characterised in that they contain one (or more) recombinant nucleotide sequence(s) in accordance with any of claims 5 to 8, incorporated in stable manner in their genome, these plants being chosen in particular from colza, tobacco, maize, pea, tomato, carrot, wheat, barley, potato, soybean, sunflower, lettuce, rice, alfalfa *and beetroot*.

16. Recombinant pancreatic lipase or protein or derived polypeptide characterised in that it is obtained using the method of claim 12 or 14.

17. Recombinant colipase or protein or derived polypeptide, characterised in that it is obtained using the method of claim 13 or 14.

18. Association of recombinant pancreatic lipase and colipase or protein or derived polypeptide, characterised in that it is obtained using the method of claim 14.

19. Plant extract having enzymatic activity such as obtained by implementing a method of any of claims 11 to 14, characterised in that it contains recombinant pancreatic lipase and/or recombinant colipase or the proteins or derived polypeptides.

20. Use of plants, *or parts* of plants, in accordance with claim 15, and/or plant extracts in accordance with claim 19, and/or proteins or polypeptides or an association

thereof in accordance with claims 16 to 18, to obtain medicinal products intended for the treatment of pathologies associated with deficient lipase production in the body, such as cystic fibrosis or for the treatment of eating disorders, such as obesity.

21. Pharmaceutical product, characterised in that it comprises plants, *or parts* of plants in accordance with claim 15, and/or plant extracts in accordance with claim 19, and/or proteins or polypeptides or an association thereof in accordance with claims 16 to 18, possibly in association with one or more pharmaceutically acceptable vehicles or excipients.

22. Use of plants, *or parts* of plants, in accordance with claim 15, and/or plant extracts in accordance with claim 19, and/or proteins or polypeptides or an association therefore in accordance with claims 16 to 18, to obtain foods *intended for human or animal use*, in particular functional foods more particularly intended to facilitate the absorption of animal or vegetable fats ingested by healthy persons or those suffering from one or more pathologies which may or may not affect the production level of gastric and/or pancreatic lipase.

23. Functional foods characterised in that they comprise plants, *or parts* of plants in accordance with claim 15, and/or plant extracts in accordance with claim 19, and/or proteins or polypeptides or an association thereof in accordance with claims 16 to 18, possibly in association with one (or more) other edible compound(s).

24. Use of plants, *or parts* of plants in accordance with claim 15, and/or plant extracts in accordance with claim 19, and/or proteins or polypeptides or an association thereof in accordance with claims 16 to 18, to implement enzymatic reactions in industrial, agro-food and agro-industrial areas, in particular the fat and lipochemistry industries and the dairy industry.

25. Enzymatic preparations intended for industrial, agro-food or agro-industrial applications, able to be used in accordance with claim 24, and comprising plants *or parts* of plants in accordance with claim 15, and/or plant extracts in accordance with claim 19, and/or proteins or polypeptides or an association thereof in accordance with claims 16 to 18.

26. Use of plants, *or parts* of plants, in accordance with claim 15, and/or plant extracts in accordance with claim 19, and/or proteins or polypeptides or an association thereof in accordance with claims 16 to 18, to obtain biofuels.

NdT : *1. ***Page 12, ligne 33*** de l'original : "l'ADNc manque entre les mots "suivie par" et "codant pour".

*2 : ***page 17, ligne 30*** de l'original : après "à activité", il manque un mot, qui doit certainement être "lipasique"

3 : page 32, ligne 22 de l'original : il manque quelque chose après "décrit dans ..."